Establishing a PMO Lessons Learned

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Agenda

- Lessons Learned from Industry
- How Academia & State Government Differ
- The Progress We've Made At USC
- The Road Ahead for USC
- Some Advice for the Journey

Lessons Learned from Industry

1. A Focused Team Can Accomplish the Impossible

2. Quality: What Goes Around, Comes Around

3. The Organizational Structure Can Facilitate or Hinder the "Project Culture"

4. Change Takes Patience & Perseverance

5. Project Management is not for the Faint of Heart

1. A Focused Team Can Accomplish the Impossible

- Data General's Eagle Project
  - Westborough, MA
  - 1979
  - Documented by Tracy Kidder in "The Soul of a New Machine"
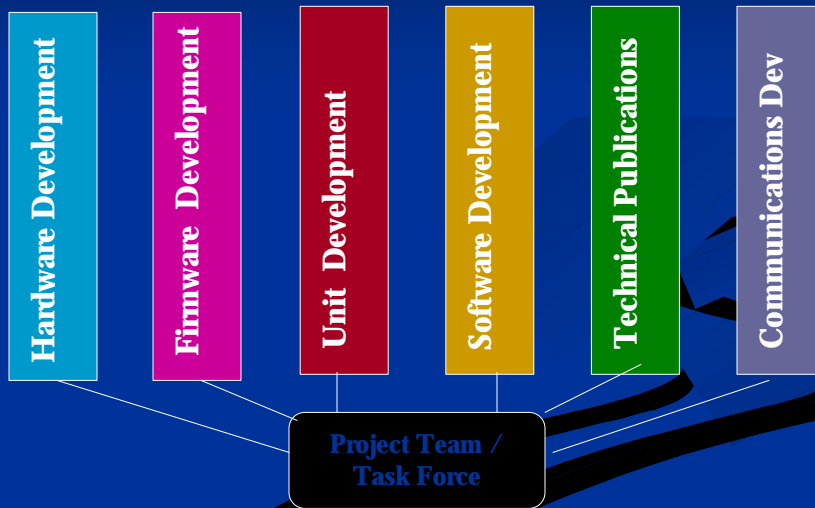
A Focused Team Can Accomplish the Impossible

- The "Soul of a New Machine" Project Team
  - Clear Objectives
  - Clear Time Frames
  - Clear Roles
  - Helps if Everyone Volunteers to be on the Team
  - No Distractions

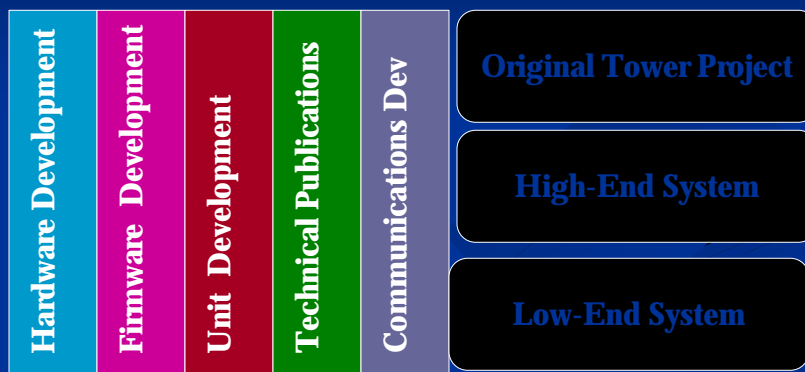- A Program of Several Smaller Projects Beats a Marathon

2. Quality Matters: What Goes Around, Comes Around

- Projects Have Defined Objectives, Defined Start, and Defined End
  - Projects Tend to Last a Short Time
  - The Quality of the Solution or Lack Thereof Continues for a Long Time Afterwards….

- Focus on Simplifying Support.

- Would the Operations Team Approve Your Next Project?

3. The Organizational Structure Can Hinder or Facilitate

Hardware Development

Firmware Development

Unit Development

Software Development

Technical Publications

Communications Dev

Project Team / Task Force

Three Successes Later....

Hardware Development

Firmware Development

Unit Development

Technical Publications

Communications Dev

Original Tower Project

High-End System

Low-End System

The Projects Had Become the Largest Department

Most Organizations Find the Balance in the Matrix

Hardware Development	
Firmware Development	**Project Management Office**
Unit Development	
Technical Publications	
Communications Dev	

Project 1
Project 2
Project 3
Project 4
Project 5
Project 6
Project 7
Project 8
Project 9
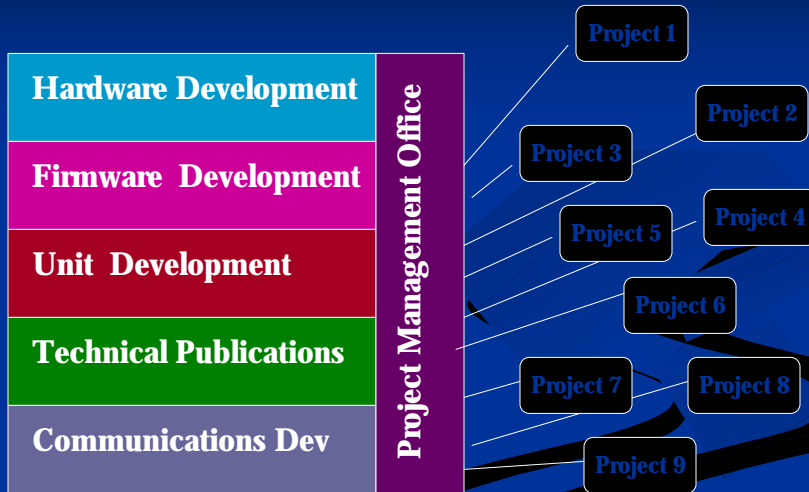
4. Change Takes Patience & Perseverance

- Introducing Project Management & Process Means Change

- People Don't Like to Change
    - Unless You're the Person Driving the Change

- We Call Them "Comfort Zones" for a Reason

The Two Most Uncomfortable Groups

- The Heroes
  - Projects Mean Less Focus on Individuals, More on Teams
- The Managers
  - Projects Mean Decisions Mostly Made By Teams, Not By Line Managers

Change Takes Patience & Perseverance

- Make the Individuals Feel Valued
  - Help the Heroes Find Their Place
- Involve the Managers in the Governance of the Project Portfolio
- Measure the Progress
- Review What Works, What Doesn't
- Adjust
  - Adjust
    - Adjust

5. Project Management - Not For the Faint of Heart

- The Project Management Role Requires True Leadership

- All the Accountability With No Formal Authority
  - Charter
  - Process
  - Governance

How Academia & State Government Differ from Industry

- Fewer "Impossible" Projects
  - More Diversity of Projects

- Strategic Planning is More Challenging
  - No Dictates from the CEO
  - Diverse Agendas and Priorities
  - The Funding Model is Completely Different

- Culture Is Not Mandated
  - The Change Process Takes Longer

- The Process Must Conform to State Regulations

People Are Motivated by the Same Factors

Introducing Project Management at USC in 2004

- The Opportunities
  - Supportive Senior Management
  - Experienced Line Management
  - Interesting, Challenging Projects
- The Challenges
  - No Foundation Architecture
  - Few Processes Defined
  - No Standard Development Process

The Capability Maturity Model

5. Optimized

4. Managed

3. Defined

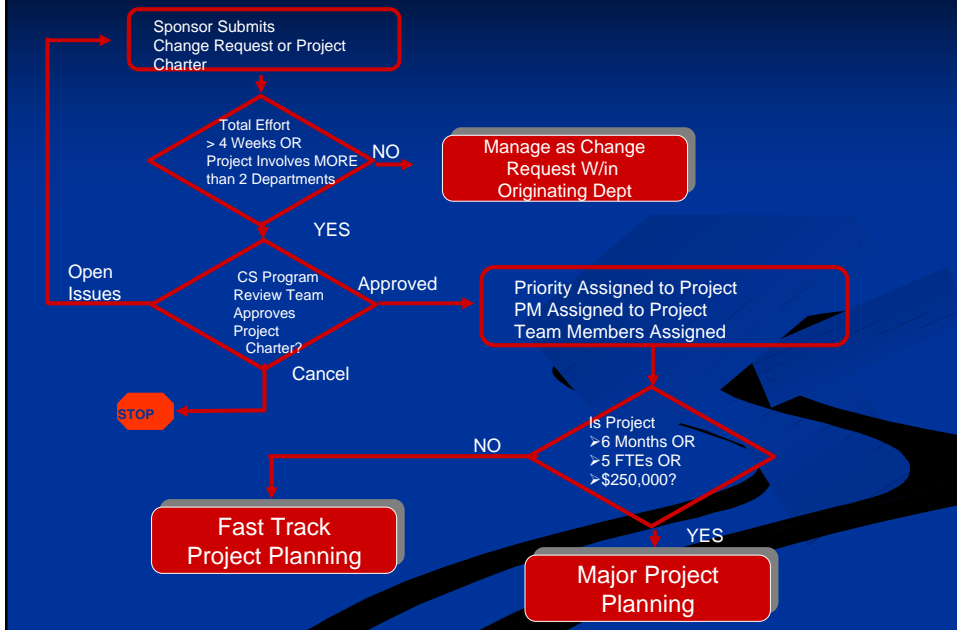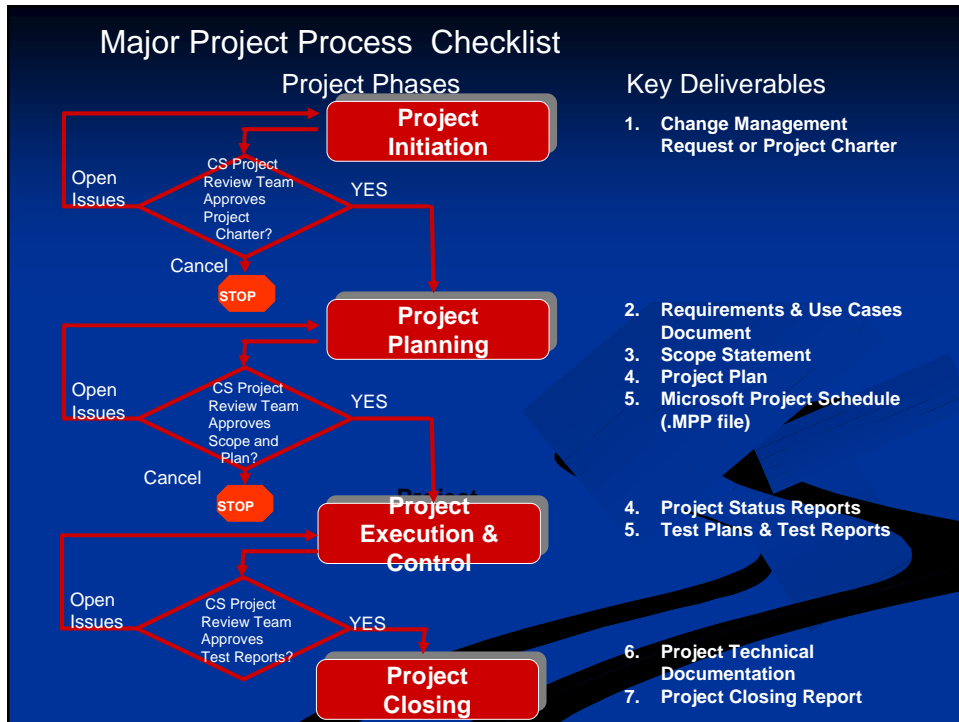*USC in 2004* →

2. Repeatable

1. Initial
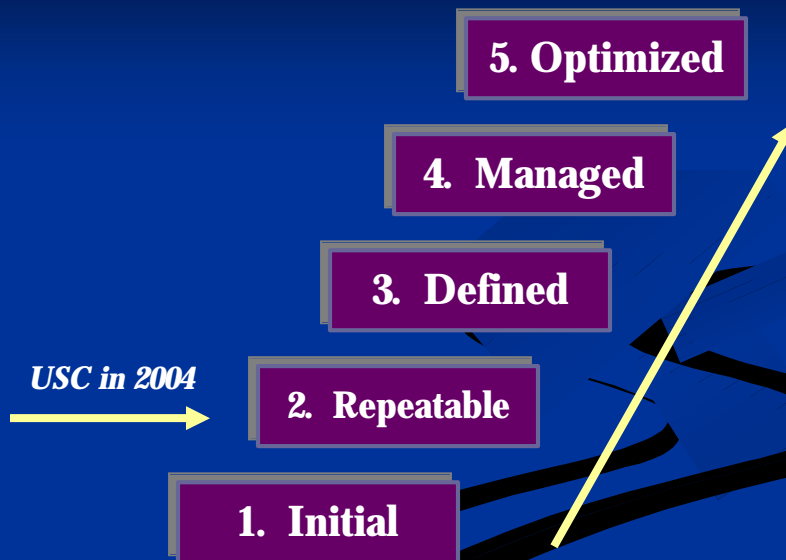
Progress Achieved Since 2004

- Implemented Project Governance & Portfolio Management

- Began Training Project Managers

- Adapted the SC State Methodology
  - Scaled it to Fit USC
  - Fast Track Projects
    - Major Projects
  - Emphasis on Charter & Plan

USC Project Process

Sponsor Submits Change Request or Project Charter

Total Effort > 4 Weeks OR Project Involves MORE than 2 Departments

NO → Manage as Change Request W/in Originating Dept

YES

Open Issues

CS Program Review Team Approves Project Charter?

Approved → Priority Assigned to Project / PM Assigned to Project / Team Members Assigned

Cancel

STOP

Is Project
➢6 Months OR
➢5 FTEs OR
➢$250,000?

NO → Fast Track Project Planning

YES → Major Project Planning

Major Project Process Checklist

Project Phases

Project Initiation

CS Project Review Team Approves Project Charter?

Open Issues

YES

Cancel

STOP

Project Planning

CS Project Review Team Approves Scope and Plan?

Open Issues

YES

Cancel

STOP

Project Execution & Control

CS Project Review Team Approves Test Reports?

Open Issues

YES

Project Closing

Key Deliverables

1. **Change Management Request or Project Charter**

2. **Requirements & Use Cases Document**
3. **Scope Statement**
4. **Project Plan**
5. **Microsoft Project Schedule (.MPP file)**

4. **Project Status Reports**
5. **Test Plans & Test Reports**

6. **Project Technical Documentation**
7. **Project Closing Report**

Lessons Learned After 2 Years

- The Foundation Architecture is Essential to Portfolio Management
  - Leveraging the SC State Architecture
  - Define What's Specific for USC

- Line Managers Can't Be PM's
  - Project Management Is a Full-Time Job
  - Charters & Status Reports Became the Norm
  - Staff a PMO with Trained & Experienced PM's
    - Hiring Great People Yields Great Results

- Resource Management Remains a Challenge
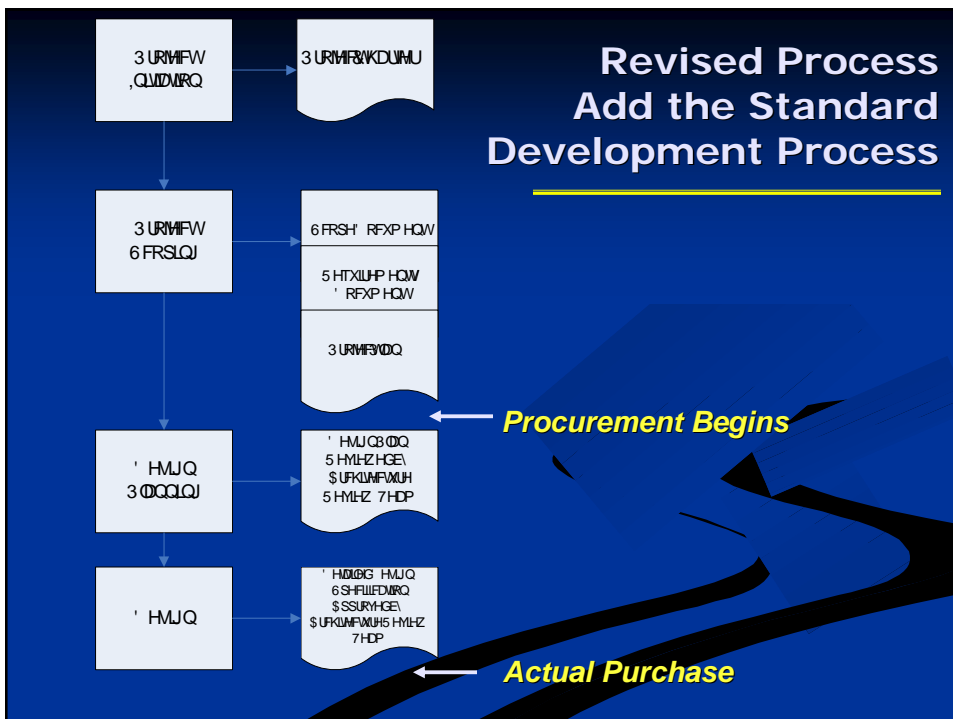
The Project Office

- Project Managers
  - Rita Anderson
  - Kevin Germann
  - Betty Hawkins
  - Richard Stingel
  - Chris Joye (Consultant)
  - Dexter Kennedy (Consultant)

- Process Definition
  - Joyce Shealy
- Engineers
  - Kirk Chapman
  - Bill Crayton
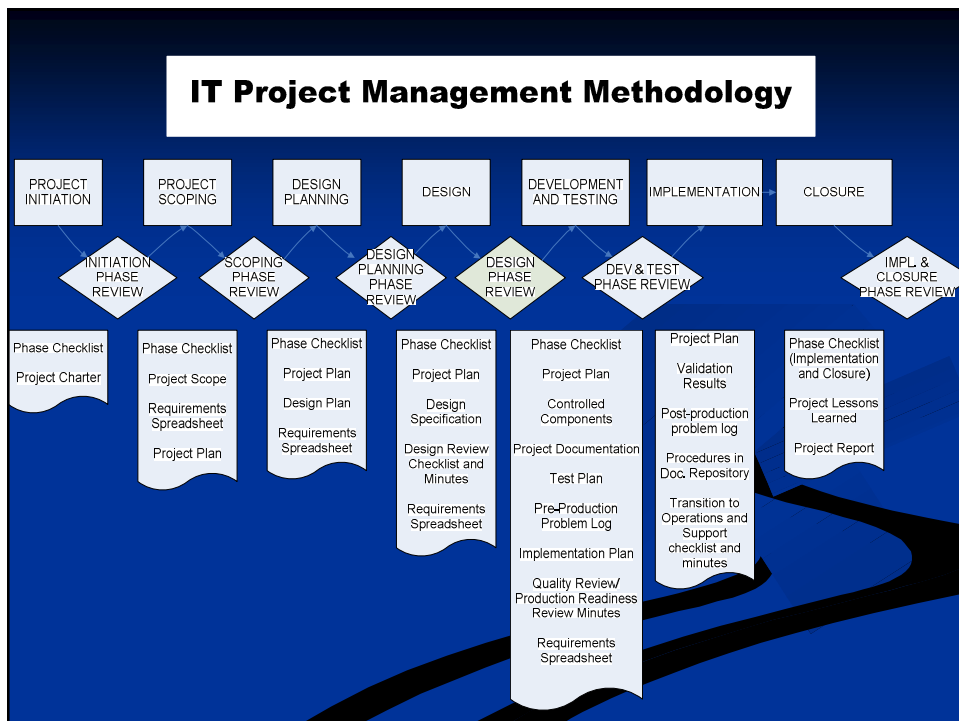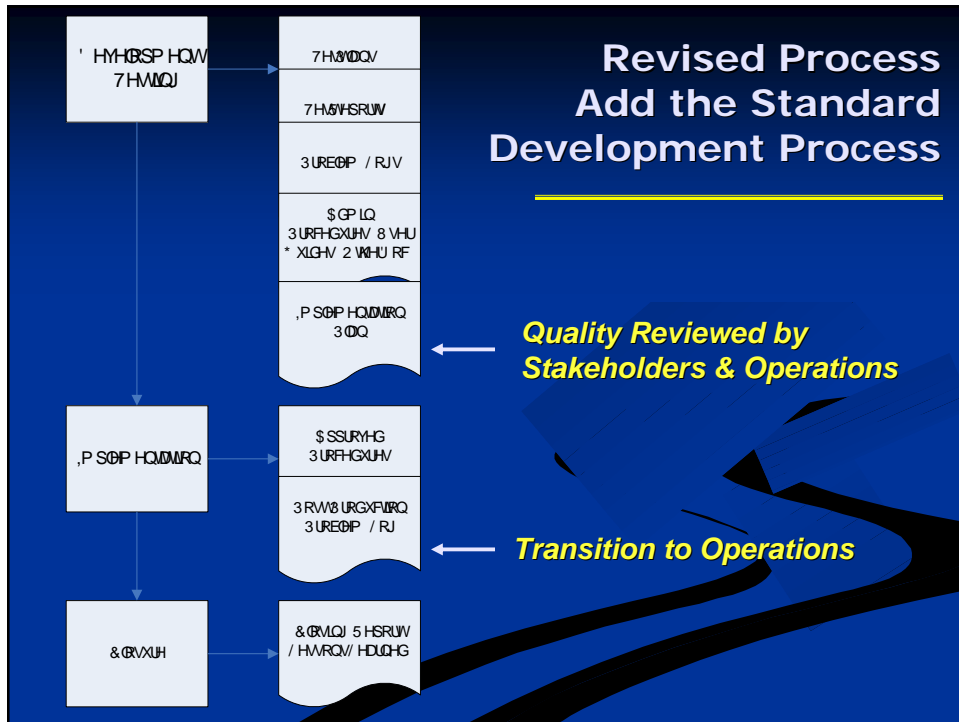 - Sibyl Hare

- Key Risk: Project Load Per PM

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http://uts.sc.edu/csprojects

2 Years Ago	Today	Goal State
No Consistent PM Methodology	Basic PM Methodology; does not address product development or technology introduction lifecycle.	PM Methodology that incorporates product development & new technology introduction.
Key technical/project decisions driven by directors.	SME's participating on teams, but delegation of authority is still evolving.	Directors delegate participation and decision making to SME's on project teams and provide oversight to decision making via PRT.
Inconsistent definition of deliverables	Improved definition and quality of deliverables but consistency varies.	Sustained improvement in quality that is consistent across projects; i.e., expectations are set and met.
Transition to Operations and Support Weak	Operations and Support participating in projects, but transition still weak.	Formal transition to Operations and Support.
Project Resource Mgmt very weak, mostly reactive	Resource management remains a challenge.	Proactively balance resources between projects and Operations.

Revised Process
Add the Standard
Development Process

Procurement Begins

Actual Purchase

Revised Process Add the Standard Development Process

Quality Reviewed by Stakeholders & Operations

Transition to Operations

IT Project Management Methodology

PROJECT INITIATION	PROJECT SCOPING	DESIGN PLANNING	DESIGN	DEVELOPMENT AND TESTING	IMPLEMENTATION	CLOSURE
INITIATION PHASE REVIEW	SCOPING PHASE REVIEW	DESIGN PLANNING PHASE REVIEW	DESIGN PHASE REVIEW	DEV & TEST PHASE REVIEW		IMPL. & CLOSURE PHASE REVIEW
Phase Checklist / Project Charter	Phase Checklist / Project Scope / Requirements Spreadsheet / Project Plan	Phase Checklist / Project Plan / Design Plan / Requirements Spreadsheet	Phase Checklist / Project Plan / Design Specification / Design Review Checklist and Minutes / Requirements Spreadsheet	Phase Checklist / Project Plan / Controlled Components / Project Documentation / Test Plan / Pre-Production Problem Log / Implementation Plan / Quality Review/ Production Readiness Review Minutes / Requirements Spreadsheet	Project Plan / Validation Results / Post-production problem log / Procedures in Doc. Repository / Transition to Operations and Support checklist and minutes	Phase Checklist (Implementation and Closure) / Project Lessons Learned / Project Report

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Increased Project Governance

- More Reviews by the PRT
  - Engages the Top Line Management in Project Decisions
  - Encourages Management to Delegate Day-to-Day Responsibilities to Team Members
  - Manage Via the PRT
- Increased Focus on Resource Management
- Increased Focus on Process & Quality

Next Steps for USC

- Implement The Revised Project Process
  - Piloting 5 Projects

- Define the Architecture

- Develop a Process-Centric Culture
  - Require Documented Operational Processes for All Projects
  - Introduce ITIL

5. Optimized

4. Managed

3. Defined

USC in 2006

2. Repeatable

1. Initial

Some Advice for the Journey

- Find a Little "Soul of a New Machine" in Every Project
  - Work with Management to Get the Right Team Members
  - Ensure that Team Members are Truly Empowered
  - Clarify Goals & Roles

- Make Incremental Progress Towards Best Practices

- Celebrate Each Success

Believe You Can Succeed

- Attitudes are Contagious
- If Optimism Is Not Your Nature…
  - It Just Needs To Become The Habit You Practice!

FULL

EMPTY

For More Info

University Technology Services
  http://uts.sc.edu/csprojects

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